



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,415	11/16/2001	Anjur Sundaresan Krishnakumar	15-5	4144
7590 09/28/2005 Ryan, Mason & Lewis, LLP 90 Forest Avenue Locust Valley, NY 11560			EXAMINER HSU, ALPUS	
			ART UNIT 2665	PAPER NUMBER

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,415

Applicant(s)

KRISHNAKUMAR ET AL.

Examiner

Alpus H. Hsu

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-12 and 22-26 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 20, 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2665

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-5, 15-19 are rejected under 35 U.S.C. 102(a) as being anticipated by CALDARA et al. in U. S. Patent no. 5,872,769 (of record).

Referring to claim 1, by broadly interpreting each queue in CALDARA et al. as the claimed linked list, CALDARA et al. discloses a contention-based communications network (ATM Network) in which multiple linked-list chains of data packets (Figures 5, 6 and 11) transmitted by communications stations (not shown) supported by said network at a particular point in time are not always thereafter joined into a single linked-list chain (see col. 3, lines 17-22, 44-51, col. 7, line 66 to col. 8, line 7, col. 8, line 65 to col. 9, line 7, col. 12, lines 11-14, 31-32, 36-42, 52-61, col. 13, lines 41-43).

Referring to claim 2, by broadly interpreting each queue in CALDARA et al. as the claimed linked list, CALDARA et al. discloses a contention-based communications network (ATM Network) in which first and second independent linked-list chains of data packets (Figures 5, 6 and 11) transmitted by communications stations (not shown), once formed, are allowed to continue to exist independently for an indeterminate amount of time (see col. 3, lines 17-22, 44-51, col. 7, line 66 to col. 8, line 7, col. 8, line 65 to col. 9, line 7, col. 12, lines 11-14, 31-32, 36-42, 52-61, col. 13, lines 41-43).

Referring to claim 3, CALDARA et al. discloses that the communications network includes a communications medium (PER LINK) and wherein the communications stations

Art Unit: 2665

transmitting the data packets of said first and second independent linked-list chains repetitively access said medium (see col. 9, lines 8-21).

Referring to claim 4, CALDARA et al. discloses that the first and second independent linked-list chains of data packets are joined into a single linked-list chain only if the separation between them becomes less than a particular amount (see col. 14, lines 21-27).

Referring to claim 5, CALDARA et al. discloses that if the separation between said first and second independent linked-list chains becomes less than a particular amount, the separation between said first and second independent linked-list chains is caused to be increased (see col. 6, lines 48-53).

Referring to claims 15 and 16, CALDARA et al. discloses a method comprising the step of forming multiple linked-list chains of data packets transmitted by communications stations in a contention-based communications network, said method characterized in that said multiple linked-list chains, after having been formed, are not always thereafter joined into a single linked-list chain, wherein the multiple linked-list chains are independent linked-list chains which, once formed, are allowed to continue to exist independently for an indeterminate amount of time (see col. 3, lines 17-22, 44-51, col. 7, line 66 to col. 8, line 7, col. 8, line 65 to col. 9, line 7, col. 12, lines 11-14, 31-32, 36-42, 52-61, col. 13, lines 41-43).

Referring to claim 17, CALDARA et al. discloses that the communications network includes a communications medium (PER LINK) and wherein the communications stations transmitting the data packets of said first and second independent linked-list chains repetitively access said medium (see col. 9, lines 8-21).

Art Unit: 2665

Referring to claim 18, CALDARA et al. discloses that the first and second independent linked-list chains of data packets are joined into a single linked-list chain only if the separation between them becomes less than a particular amount (see col. 14, lines 21-27).

Referring to claim 19, CALDARA et al. discloses that if the separation between said first and second independent linked-list chains becomes less than a particular amount, the separation between said first and second independent linked-list chains is caused to be increased (see col. 6, lines 48-53).

3. Claims 8-12, 22-26 are allowed.
4. Claims 6, 7, 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Applicant's arguments filed 05 July 2005 have been fully considered but they are not persuasive.

In the remark, the applicant first argued that claim 1 is directed to a contention-based network by referring to the specification, page 1, line 4, to page 2, line 9, and page 3, lines 14-31, which recites that “a contention-based network is a type of network, such as an Ethernet local area network, in which the various communication stations contend for access to a shared medium by attempting to transmit over the medium. This contention gives rise to collisions, which are resolved according to a protocol of the contention-based network”. And Caldara is directed to a linked-list structure and method for use in an asynchronous transfer mode (ATM) network switch, which is not a contention-based network.

The examiner disagrees since it is only the preamble of claim 1 recites "a contention-based communications network". There is no recitation from the body of the claim to support or further limit the so-called "contention-based network". By the broadest interpretation, the ATM network as in Caldara can be called any desired name such as a "contention-based network" as long as there are plural users or communication stations sending data cells/packets into the network with different orders based on different priorities. Accordingly, the network in Caldara can be broadly interpreted as a contention-based network, and meet the claimed limitation.

Secondly, the Applicant argued that claim 1 specifies that multiple linked-list chains of data packets are transmitted by the communications stations. And the Caldara reference is not describing multiple linked-list chains of data packets, as recited in the claim. Instead, the linked lists in Caldara comprise a "list of lists" arrangement, and not multiple linked-list chains of data packets. Also the Caldara reference describes an ATM switch, and not a set of communication stations. Although cells transmitted by the ATM switch of Caldera may originate from communication stations, the particular manner in which the cells are transmitted by the ATM switch is not controlled by the communication stations, nor would such stations be aware of the linked-list structure implemented by the switch.

The examiner also disagreed since it is the examiner's interpretation of linked list structure as the claimed multiple linked-list chains of data packets. The claim has not further define the multiple linked-list chains of data packets to be distinguishable from the linked list structure as in Caldara reference. Furthermore, the cells transmitted by the ATM switch of Caldera are inherently originated from communication stations, the particular manner in which the cells are transmitted by the ATM switch and for such stations be aware of the linked-list

Art Unit: 2665

structure implemented by the switch are irrelevant to the invention as claimed. Accordingly, Caldara clearly meets the limitation of “the transmission of multiple linked-list chains of data packets by communication stations” as claimed.

In view of the above reasoning, it is the examiner’s opinion that the 102 ((a)) rejections regarding claims 1-5, 15-19 should be sustained.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

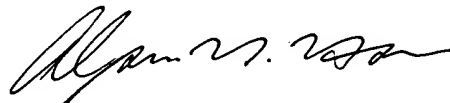
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Huy D. Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2665

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH



Alpus H. Hsu
Primary Examiner
Art Unit 2665